

CLAIM AMENDMENTS

Claims 1-245 (canceled)

245. (previously presented) A composition comprising (a) an isolated primary nucleic acid construct comprising a primary nucleic acid, which upon introduction into a eukaryotic cell acts as a template for the synthesis of a secondary nucleic acid which acts as a template for the synthesis of a gene product, selected from the group consisting of a sense and antisense nucleic acid in said eukaryotic cell, wherein said secondary nucleic acid or said gene product does not act as a template for the synthesis of said primary nucleic acid and (b) a signal processing sequence.

Claims 246-247 (canceled)

248. (previously presented) The composition of claim 245, wherein said primary nucleic acid is single-stranded, double-stranded or partially double-stranded.

249. (previously presented) The composition of claim 245, wherein said primary nucleic acid is selected from the group consisting of DNA, RNA and nucleic acid analogs, and a combination thereof.

250. (previously presented) The composition of claim 249, wherein said DNA, RNA or both are modified.

251. (previously presented) The composition of claim 245, wherein said secondary nucleic acid is selected from the group consisting of DNA, RNA, a DNA-RNA hybrid, a DNA-RNA chimera and a combination of the foregoing.

252. (canceled)

253. (previously presented) The composition of claim 245, wherein said signal processing sequence is selected from the group consisting of a promoter, an initiator, a terminator, an intron, a cellular localization element and a combination of the foregoing.

254. (previously presented) The composition of claim 245, wherein said signal processing sequence is contained in an element selected from the group consisting of said primary nucleic acid, said secondary nucleic acid, said gene product, and a combination of the foregoing.

255. (previously presented) The composition of claim 245, wherein said gene product is single-stranded.

Claims 256-259 (canceled)

260. (previously presented) A eukaryotic cell containing the composition of claim 245.

Claim 261-263 (canceled)

264. (previously presented) A secondary nucleic acid or gene product produced from the composition of claim 245.

265. (currently amended) An isolated nucleic acid construct which when present in a cell acts as a template for the synthesis of a nucleic acid comprising (i) a nuclear localization sequence comprising a portion of U1, U2 or U4 snRNA, said portion of U1, U2 or U4 snRNA comprising sequences for (a) at least two stem loops present at the 3' end of native U1, U2 or U4 snRNA, and (b) a reimportation signal and (ii) an antisense nucleic acid sequence, said antisense nucleic acid sequence replacing sequences that participated in stem-loop formation in the native form of said U1, U2 or U4 snRNA.

Claims 266-267 (canceled)

268. (previously presented) The nucleic acid construct of claim 265, wherein said antisense nucleic acid (ii) is selected from the group consisting of DNA, RNA, a DNA-RNA hybrid, a DNA-RNA chimera, and a combination of the foregoing.

Claim 269 (canceled)

270. (previously presented) The nucleic acid construct of claim 265, wherein said nuclear localized sequence comprises a portion of U1 RNA comprising C and D loops.

Claim 271 (canceled)

272. (previously presented) The nucleic acid construct of claim 265, wherein said nucleic acid synthesized by said nucleic acid construct is single-stranded.

Claims 273-283 (canceled)

284. (previously presented) A cell containing the nucleic acid construct of claim 265.

Claims 285-287 (canceled)

288. (previously presented) A biological system containing the cell of claim 284.

289. (previously presented) The biological system of claim 288, wherein said system is selected from the group consisting of an organism, an organ, a tissue, a culture and a combination thereof.

290. (previously presented) A process for localizing a gene product in a eukaryotic cell, comprising:

- (a) providing the nucleic acid construct of claim 265 and
- (b) introducing said composition into said cell *ex vivo*.

Claims 291-295 (canceled)

296. (currently amended) The process of claim 290, wherein the nucleic acid construct comprises U1 or U2 ~~or both~~ or both.

Claims 297-298 (canceled)

299. (currently amended) An isolated multi-cassette nucleic acid construct comprising at least three promoters, which upon introduction into a eukaryotic cell produces at least one specific nucleic acid from each of said promoters, each such specific nucleic acid so produced being substantially nonhomologous with each other and being either complementary with a specific portion of one or more viral ~~or cellular~~ RNAs in a cell or binds to a specific viral ~~or cellular~~ protein, wherein each specific nucleic acid binds to different target nucleic acid sequences.

Claims 300-302 (canceled)

303. (previously presented) The nucleic acid construct of claim 299, wherein said nucleic acid in said construct is selected from DNA, RNA, nucleic acid analogs and a combination thereof.

304. (previously presented) The nucleic acid construct of claim 303, wherein said DNA or RNA in said construct is modified.

Claims 305-307 (canceled)

308. (currently amended) The nucleic acid construct of claim 299, wherein said specific nucleic acid complementary with a specific portion of viral ~~or cellular~~ RNAs produced act as antisense.

Claims 309-311 (canceled)

312. (previously presented) The nucleic acid construct of claim 299, wherein said specific nucleic acid produced is selected from antisense RNA, antisense DNA, a ribozyme, a protein binding nucleic acid sequence, and a combination of the foregoing.

313. (previously presented) The nucleic acid construct of claim 299, further comprising a means for delivering said nucleic acid to said eukaryotic cell.

Claims 314-317 (canceled)

318. (withdrawn) A process for introducing a gene product into a cell comprising
(a) providing the nucleic acid construct of claim 245 and
(b) administering said nucleic acid construct.

319. (withdrawn) The method according to claim 318 wherein said nucleic acid construct is administered *ex vivo*.

320. (withdrawn) The method according to claim 318, wherein said nucleic acid construct is administered *in vivo*.

321. (withdrawn) A process for introducing a plurality of nucleic acid sequences into a cell comprising:
(a) providing the nucleic acid construct of claim 299 and
(b) administering said nucleic acid construct.

322. (withdrawn) The method according to claim 321, wherein said nucleic acid construct is administered *ex vivo*.

323. (withdrawn) The method according to claim 318, wherein said nucleic acid construct is administered *in vivo*.

324. (canceled)

325. (currently amended) An isolated multi-cassette nucleic acid construct comprising more than one promoter, wherein said promoter is a snRNA promoter or bacteriophage promoter, which upon introduction into a eukaryotic cell produces more than one specific nucleic acid, each such specific nucleic acid so produced being substantially nonhomologous with each other and being either complementary with a specific portion of one or more viral ~~or cellular~~ RNAs in a cell or binds to a specific viral ~~or cellular~~ protein, wherein each specific nucleic acid binds to different target nucleic acid sequences.

326 (previously presented) An isolated multi-cassette nucleic acid construct comprising at least three promoters, which upon introduction into a eukaryotic cell produces at least one specific nucleic acid from each of said promoters, each such specific nucleic acid so produced being substantially nonhomologous with each other and being either complementary with a specific portion of one or more HIV RNAs in a cell or binds to a specific HIV protein, wherein each specific nucleic acid binds to different target nucleic acid sequences.